UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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August 3, 2015

Theodore A. Brown, P.E.
Chief, Planning and Policy Division
Directorate of Civil Works
U.S. Army Corps of Engineers
CECW-P (SA)
7701 Telegraph Road
Alexandria, Virginia 22315-3860

SUBJECT: Final Integrated Feasibility Report and Environmental Impact Statement for Charleston Harbor Post 45, Charleston, South Carolina; **CEQ No.: 20150188**

Dear Mr. Brown:

The U.S. Environmental Protection Agency (EPA) has reviewed the above referenced Final Integrated Feasibility Report and Final Environmental Impact Statement (FEIS) in accordance with its responsibilities under Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The Charleston District of the U.S. Army Corps of Engineers ('Corps') and the South Carolina State Port Authority (SPA) propose navigation improvements in Charleston harbor and associated river channels. These improvements consist of deepening the entrance channel, extending the entrance channel, deepening the inner harbor, enlarging the existing turning basin (to include North Charleston Terminal turning basin) and placing dredge material in existing confined disposal facilities (CDFs) and the Ocean Dredged Material Disposal Site (ODMDS). These improvements are proposed to accommodate larger post-Panamax ships that require deeper depths.

The stated purpose of the Post 45 is to implement navigation improvements to increase efficiency and accommodate increasingly larger ships; especially container ships. The Corps states that, "*existing dimensions of the navigation channels place constraints on deeper-drafting containerships, which result in reduced efficiency and increased costs. Navigation and safety considerations include three main problems: insufficient Federal channel depths, difficult currents, and restrictive channel widths and turning basins. Larger ships currently experience transportation delays due to insufficient Federal channel depths.*"

The Corps has evaluated six alternatives that considered deepening to various depths of the upper harbor and the lower harbor. Three alternatives were eliminated due to low economic net benefits. The remaining three alternatives evaluated were identified using a combination of two numbers separated by "/". The first number represents deepening of the lower harbor (in feet) and the second number represents deepening the upper harbor (in feet). Thus, the three remaining alternatives were 48/48, 50/48 and 52/48. After further evaluation, the 48/48

alternative was eliminated because it had smaller net economic benefits when compared to the 50/48 and 52/48 alternatives.

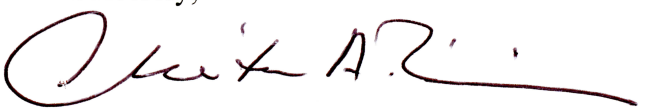
As stated in the FEIS, the Corps' primary decision criteria for identifying the recommended plan (RP) follows the National Economic Development (NED) plan, which is based on maximizing net benefits while remaining consistent with the Federal objective of protecting the nation's environment. In the Draft EIS (DEIS), the Corps initially identified the 50/48 alternative as the tentatively selected plan (TSP) or preferred alternative; however, the SPA requested the Corps identify the 52/48 alternative as the Locally Preferred Plan (LPP), which requires the SPA to pay for the difference in cost between the LPP and the TSP (i.e., $75 million). Also in the DEIS, the Corps determined that the 52/48 alternative (LPP) would be the TSP (i.e. preferred alternative). The Corps in the FEIS also determined that the 52/48 alternative would be the 'RP' or preferred alternative.

As stated in the FEIS, the 'RP' or preferred alternative consists of the following navigation improvements: deepening the existing entrance channel from a project depth of -47 to -54 feet, extending the entrance channel approximately three miles seaward from the existing location, deepening the inner harbor (to the Wando Welch facility on the Wando River and the New Navy Base Terminal on the Cooper River, and -48 feet for the reaches above the new Navy Base Terminal to the North Charleston facility on the Cooper River) from the existing project depth of -45 to -52 feet, enlarging both of the existing turning basins to 1800 feet diameter at the Wando Welch facility and the new SPA terminal to accommodate Post Panamax Generation 2 and 3 container ships, enlarging the North Charleston terminal turning basin to a 1650 foot diameter to accommodate the Post Panamax Generation 2 container ships, placing dredged material and raising dikes at the existing upland CDF facilities and placing dredge material in the existing ODMDS (to include expansion of the ODMDS).

In EPA's DEIS comment letter dated November 24, 2014, substantial concerns were identified regarding the proposed mitigation, monitoring and adaptive management plan, air quality, and the environmental justice (EJ) analysis. EPA has the remaining environmental concerns with respect to the monitoring and adaptive management plan, air quality, cumulative impacts, and EJ. These environmental concerns from the review of the FEIS are further detailed in an attachment to this letter (See Attachment A).

Please contact me at 404-562-9512 or my staff, Jamie Higgins at (404) 562-9681 or Larry Gissentanna at (404) 562-8248, if you or your staff wish to discuss our comments. Thank you.

Sincerely,



Christopher A. Militscher
Chief, NEPA Program Office
Resource Conservation and Restoration Division

Attachment A
Final Integrated Feasibility Report and Environmental Impact Statement for Charleston Harbor Post 45, Charleston, South Carolina
EPA FEIS Comments

Mitigation, Monitoring and Adaptive Management Plan (MMAMP): EPA recognizes that the Corps addressed many of EPA's concerns raised in the EPA letter in the FEIS and providing a greater level of detail in the FEIS's MMAMP. However, EPA has remaining environmental concerns as outlined below. EPA suggests that most of these remaining concerns can be resolved collaboratively through the Interagency Coordination Team (ICT) framework.

a. EPA is concerned with the lack of a contingency plan should all wetlands mitigation (preservation) lands be unable to be purchased. This recently occurred in the Savannah Harbor Expansion Project (SHEP) and the Savannah District had identified contingency lands that had been (or were) deemed adequate by the Corps and resource agencies. EPA recommends the Corps identify other lands that could functionally replace impacted wetlands and commit to coordinating with the ICT if mitigation lands in the DEIS are unavailable for purchase in the future.

b. On page 47 (Appendix P, 2.5.9), the Corps states, "*...the USACE will convene field visits with the ICT to verify that the functions are still being met. These visits will occur 1, 3, and 5 years after construction is complete.*" EPA appreciates the Corps coordinating field visits to ensure that mitigation functions are being met; but what happens should the ICT determine that wetlands functions are not met? EPA recommends the Corps commit to establishing an adaptive management feedback mechanism which would include re-convening the ICT to determine the best course of action.

Duration of Post-Construction Monitoring: EPA recognizes that the Corps is committing to 10 years of post-construction vegetation monitoring. However, EPA remains concerned regarding the duration for post-construction monitoring for water quality (Dissolved Oxygen (DO) and salinity). EPA understands that the Corps proposes to conduct post-construction monitoring for DO and salinity annually for 5 years. As stated in EPA's comment letter for the DEIS (November 24, 2014), there is a continued concerned that 5 years is not a long enough duration to establish that water quality is no longer impacted. The Corps in Savannah and Jacksonville recognized the uncertain nature of deepening projects and will conduct 10 years of post-construction monitoring for their respective projects, which was reflected in the FEISs issued for those projects. Given the uncertainty of impacts on water quality from harbor deepening projects, EPA strongly recommends the Corps expand post-construction monitoring for DO and salinity to 10 years and commit to this in the Record of Decision (ROD).

Air Quality: As previously stated in the DEIS comment letter, EPA remains concerned regarding the lack of information related to the potential impacts of near-source air toxic exposures (e.g., Sources within 1,500 feet) to sensitive populations (e.g., the old, young and infirmed). EPA also strongly recommends that the Corps and SPA consider 5 years of air toxics monitoring following the completion of the harbor deepening project to ensure that the project assumptions are accurate and increases in port growth or changes in port operations are not

having a potentially significant impact on nearby sensitive populations. EPA requests that the Corps and/or SPA commit to this monitoring and that this commitment be reflected in the ROD. EPA is also concerned with the lack of discussion regarding the port operations' (especially the terminal operations') impacts to air quality. Additionally, during the draft EIS process, EPA and the Corps participated in many calls discussing the progress of hotspot and air toxic analysis, which included an assessment of risk to the community surrounding the proposed project. However, there is no reference to this effort in the FEIS, and EPA would like to review any hotspot and impact analysis that was conducted as part of the assessment of risk related to this project. EPA recommends the Corps consider the results of any hotspot and air toxic analysis as they move forward during the design and construction phase of the project. EPA further recommends that the results of this analysis be shared with the public during any future public meetings.

Environmental Justice (EJ) and Public Outreach: EPA acknowledges the effort of the Corps to identify minority and low-income populations within a mile of the proposed navigation channel deepening project. The EJ assessment indicates that communities with environmental justice concerns exist within the proposed project's vicinity. EPA understands that the Corps does not anticipate disproportionate and adverse effects to minority or low-income populations. However, based on the uncertainties that remain regarding potential near-source air toxic exposures and public concerns and interest in the activities proposed within the vicinity of the Port, EPA recommends the Corps and the SPA work closely with local communities to address their concerns. EPA recognizes the Corps' commitment to provide proactive public outreach with the community. In the FEIS, the Corps commits to holding a public meeting in North Charleston to present information on the project (e.g., the design phase, the construction phase, and future operations and maintenance) and establishing an outreach website that includes an interactive GIS-viewer during construction as well as a contact information link to address public questions and concerns (i.e., pg. 5-71, 5.4.23.4; Public Engagement during Construction). EPA supports the Corps' efforts to more meaningfully engage the public and increase the transparency of the project. We further recommend efforts to monitor near-source air emissions (See above Air Quality comments).

Cumulative Impacts Assessment: In the DEIS comment letter, EPA raised environmental concerns regarding the Corps' Cumulative Impact Assessment found in Appendix O. EPA notes that the Corps did not acknowledge or respond to EPA's DEIS comments in the FEIS. Further, there were no revisions in the FEIS's Cumulative Impact Assessment to reflect these identified concerns. EPA requests that the Corps fully address the project's cumulative impacts consistent with the DEIS comments.

Draft Chief's Report: EPA acknowledges the opportunity to review the project's Draft Chief's Report and offers the following recommendations:

a. The Corps states on page 3 (2i), "*Environmental monitoring of wetlands, water quality, and hardbottoms will include an estimated 9 years of monitoring, including pre-construction monitoring (1 year), construction-concurrent monitoring (3 years), and post-construction monitoring (5 years) at an estimated cost of $10,620,000...However, in order to address concerns expressed by resource agencies about uncertainty in the ability to predict changes at*

specific locations and the potential for unanticipated erosion impacts, particularly at Fort Sumter, monitoring will also include a 9-year evaluation of wave, current, and shoreline changes at an estimated cost of $5,310,000. If post-construction monitoring indicates that additional monitoring or corrective action as part of the federal project is warranted, the USACE could share in the cost of the additional efforts."

It is unclear to EPA as to whether the additional monitoring discussed in the last sentence applies to wetlands, water quality and hardbottoms or if it applies only to impacts associated with shoreline erosion. It is EPA's understanding that wetland vegetation monitoring could extend beyond 5 years as discussed in Appendix P: Mitigation Planning and Monitoring and Adaptive Management Plan (page 70, 5.6.2 Corrective Action/Adaptive Management). The Corps further states,

> *"If after five years post-construction, the results of wetland vegetation monitoring indicate that impacts predicted during the feasibility phase of the project (i.e., a 20% change in the vegetative communities) were under-estimated, corrective actions will be implemented. First among them is to conduct additional monitoring/investigations to track any further unanticipated advance of the effects of increased salinity on wetlands. Such monitoring would cease at ten years post-construction. Because of the confounding effects of sea level rise on determining project effects, it may be impossible to determine which adverse effects on vegetation are related to the proposed project. Given that, no further corrective actions regarding indirect impact determination (to wetlands) will be performed after ten years following the termination of construction activities. If additional monitoring is necessary, it will be carried out every other year until it is apparent that impacts have attenuated. The ICT will be provided with the monitoring reports. If post-construction monitoring indicates that additional monitoring or corrective action as a part of the federal project is warranted USACE could share in the cost of the additional efforts".*

EPA requests that the Corps clarify this in the Chief's Report and better articulate that wetlands monitoring (if deemed necessary by the ICT) can extend beyond 5 years and up to 10 years. Given the risks and uncertainties involved in construction of such a large, complex project and the precedence set by the Savannah and Jacksonville Districts' port expansion projects, EPA requests that this same concept of monitoring (if deemed necessary by the ICT) be extended beyond 5 years for water quality (i.e., DO and salinity).

b. EPA appreciates the Corps providing public outreach meetings and establishing an outreach website during construction to address the public's concerns and questions (pg. 5-71, 5.4.23.4; Public Engagement during Construction). The construction of a project of this magnitude has the potential to raise many concerns and questions by the public and proactive outreach to the public can alleviate many of these concerns. Therefore, EPA requests that the Corps include language in the Chief's Report that reflects the Corps' public outreach commitments as outlined in the FEIS.

EPA is committed to providing continuing technical assistance to the Corps to address these issues as the project moves forward. EPA requests that any monitoring and mitigation

commitments, the commitment to implement the MMAMP and the commitment to conduct public outreach meetings (during the design phase, the construction phase, and future operations and maintenance) and the establishment of an outreach website be documented in the Record of Decision (ROD) and included in the final Chief's Report.